

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE**

PSC DOCKET NO. 06-241

REVIEW AND APPROVAL OF THE REQUEST FOR PROPOSALS FOR THE CONSTRUCTION OF NEW
GENERATION RESOURCES UNDER 26 DEL. C. § 1007(d)

Comments on Pace Report and on Public Advocate Filing

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Introduction

Here we briefly address the validity of the Pace Report commissioned by Delmarva Power. We do not feel the Pace report merits a detailed analysis, but introduce on the record reasons that it does not contribute to valid basis for decision by the State. We also address the comments made by the Public Advocate that are widely at variance from previous Public Advocate comments with no factual basis provided for the change in opinion.

Pace Report

At many points, calculation of higher costs and risks to SOS customers are presented in ways that are misleading, although not directly false.

1. **PTC Cost Shift to Ratepayers:** While acknowledging that the Term Sheets do not allow Bluewater to recover costs due to non-renewal of the production tax credit (PTC), Pace goes on to calculate an \$11/month “premium” (p. 3) that Delmarva residential customers will pay based on the possibility that the production tax credit (PTC) will not be renewed by the US Congress. When comparing with the cost of onshore wind, Pace assumes the PTC credit.
2. **Misleading Nominal Costs:** In Exhibit 3, p. 7, Pace reports the levelized cost of the Bluewater project at approximately \$172/MWh. First, the \$172/MWh is misleading because it is expressed in nominal (each year the price was inflated by 2.5%) rather than in real terms. Everyone expects that costs will go up overtime, but income does as well (as salaries increase and money is made on investments—e.g., since 2005 the inflation rate has been about 6.5%, and even some consumer savings accounts offer as much as 4.75% per year. Thus, in real terms, the price per MWh would be decreasing over time. For example, given that the inflation rate has been approximately 6.5% since 2005 the price of the wind farm would have increased by only 5.06% --that is, its real price has gone down. Can we expect the same of our current mix of fossil-fuel power plants?

3. **Over-inflated wind load assumption:** Pace bases its calculation of per month wind premiums based on the assumption that the wind farm will contribute 1,237,000MWh each month compared to 1,106,000 MWh used by the State Consultant, while providing no justification for this deviation. This has the effect of increasing the monthly premium by 12 percent.
4. **Discount Rate Discrepancy:** Pace uses a nominal discount rate of 8.96%. Three months earlier, it used a 5.5% discount rate in the LIPA Pace Report.¹ Use of a higher discount rate will lessen apparent future costs (for example, natural gas purchases and CO₂ compliance costs), and thus make it appear that Bluewater Wind (which has a fixed 2.5% inflator) is relatively more expensive. Pace does not explain this discrepancy.
5. **Onshore Wind Price Discrepancy:** Pace provides an estimate of onshore wind (“PJM West Wind”) of approximately \$143/MWh in nominal 2014 dollars. In its August 2007 report on the LIPA offshore wind farm, Pace reported a price for “PJM Wind” of \$215/MWh in 2010 real dollars (including \$20/MWh due to forgoing use of a new transmission cable). If one subtracts \$20/MWh that yields a price of \$195/MWh. If one then assumes the low rate of 2.5% that Bluewater agreed to, that is equivalent to \$215/MWh in 2014 real dollars. Nominal dollars will be significantly greater than real dollars, but Pace never explains why “PJM West” onshore wind is so much cheaper than “PJM Wind”. Had Pace used their earlier costs for onshore wind, the Bluewater wind project costs would have been significantly lower than the onshore wind costs. Three months ago, Pace’s cost of onshore wind was above Bluewater’s costs; this week it is below. This is an especially deft analytical trick given that new wind project prices were rising during that period.
6. **Hypothesized Onshore Wind Power without analysis of availability.** The report suggests that it would be cheaper to obtain 450 MW of wind power from PJM West. PJM West was created from Allegheny Power, which covers much of West Virginia and some sections of neighboring states, including Western Pennsylvania (see map²). The Allegheny territory, predominantly in West Virginia, is still the part of PJM West closest to Delaware. 95% of the area’s power comes from coal. There appears to be only one substantial wind farm in Allegheny Power territory, Mountaineer, a 66 MW facility located in a very windy area near transmission corridors³.

¹ With this comment, I place the August 2007 Pace LIPA Report in the record of this docket.

² Map of Allegheny Energy territory is at <http://www.alleghenyenergy.com/Newsroom/AboutUs.asp>

³ The Mountaineer project is the only commercial wind farm in West Virginia, it is described at: <http://www.awea.org/projects/projects.aspx?s=West+Virginia>. The largest

The remaining wind resource in West Virginia is scattered along ridge tops, distant from both roads and major transmission lines (see US DOE maps⁴). Yet Pace implausibly assumes that a 450 MW wind farm would be built in this area and that it would cost less than the existing facilities, despite the added costs for building transmission to a set of ridgetop wind farms. It also assumes that the MAPP project will be built, to bring this wind power from West Virginia to Delaware.

It is possible that as wind expands in West Virginia, it will be lower cost than Delaware offshore wind. But DOE estimates that West Virginia's total wind resource, if all built out, would meet only 23% of its electrical need. Many states in the region have 20% renewable portfolio standards (although WV has no RPS yet), and an RPS is being proposed at the Federal level. With a 20% RPS, West Virginia would use almost all its wind resource to meet its own RPS needs. If either a national or state RPS is enacted, seems unlikely to ship wind power two states away. A similar argument could be made for the smaller PJM West area in Pennsylvania. Yet Pace implausibly assumes that a PJM West state would agree to a 25-year power purchase agreement to give away this resource at the price of current projects (p 26). By such assumptions, Pace arrives at a "hypothetical" wind power price that is lower than the BWB project price.

The News Journal reported on a public forum in Bear, DE, on Monday November 5, in which Gary Stockbridge, the head of Delmarva, was present to answer questions and clarified that the company has not ascertained the availability of onshore wind.

when an audience member asked Stockbridge whether Pennsylvania would be able to supply enough onshore wind power to fulfill Delmarva's state requirement, Stockbridge said he didn't know. Delmarva hasn't posed the question to Pennsylvania onshore wind energy providers, Stockbridge said.⁵

7. **Wind Power Capacity Discrepancy:** Pace assumes a capacity factor of onshore wind of 34% in the Bluewater report, but only 30% three months earlier in the LIPA report. This decreases the cost of onshore wind by 13%,

PA wind farm, the 80 MW Allegheny Ridge wind farm, is close to PJM West but does not appear to be in it.

⁴ West Virginia map of wind and transmission corridors at:

http://www.eere.energy.gov/windandhydro/windpoweringamerica/images/windmaps/wv_50m_800.jpg

⁵ A. Nathans, "Delmarva says wind power is risky, costly: Residents think it is a good idea", News Journal, (6 November 2007).

making the Bluewater project once again appear to look more expensive relative to onshore wind.

8. **CO₂ Compliance Cost Discrepancy:** Pace looks at RGGI and assumed federal CO₂ compliance costs beginning in 2013; in the LIPA report, it assumes they begin in 2015. In addition, the compliance costs in the two reports are wildly different. The LIPA report expresses compliance costs in nominal dollars; how they are treated in the Bluewater report is not clear (nominal or real). But regardless of how they are treated, they do not agree at all. For example from 2019 to 2020, compliance costs increase by \$3/tonne of CO₂ in the Bluewater Report, but by \$7.32 in the LIPA report; from 2023 to 2024, they increase by only \$1 in the Bluewater Report, and \$3.77 in the LIPA report; and finally, from 2024-2025, they increase by only \$3 in the Bluewater report, but by \$8.85 in the LIPA report. Overall, compliance costs start slightly lower in the LIPA report (2015 in the first year of comparison), but grow at a faster rate than in the Bluewater report, so that by 2026, the compliance costs in Long Island are more than \$6.00 more than those in Delaware. The lower overall compliance costs in Delaware would make the Bluewater project once again appear less attractive relative to the “market.” Once again, Pace does not explain the discrepancy between the Delaware report and its recently issued LIPA report.
9. **Data ends for key metrics approximately a decade earlier than the project** Exhibit 10, which portrays spot market prices ends in 2027, half-way through the contract period, while Exhibit 16, which sets forth CO₂ compliance costs, only runs through 2030 rather than through the end of the contract period, 2039. This trims 9 years off the benefit stream of the Bluewater project.
10. **Bluewater Blamed for REC risk:** Curiously, Pace criticizes the Term Sheet because Delmarva does not buy enough RECs to cover its needs. This becomes a “risk” of the project and unfair to SOS customers who are “failing to receive the environmental products” (p 19). If Pace is concerned about this, they should advise their Client to purchase more RECs from the project, now that they are offered at a fixed price. We here take no position on whether Delmarva has selected the right level of RECs purchases, but it makes no sense for Pace to downgrade the deal over terms in the control of their Client.

In sum, the Pace report present a distorted picture and one that is at variance not only with the facts but with its own LIPA report, issued just three months ago. These discrepancies call into question the credibility of Pace as disinterested analysts.

In its filing of 12 November Delmarva Power indicated its intent to submit additional comments today. We expect that Delmarva will recycle the same old, tired arguments

and contentions it has been advancing for months: e.g., it is looking out for its customers (please); there should be an open bidding process (what have we been doing these past 15 months); we should consider “regional” land-based wind power (I guess that means we export jobs and economic development to West Virginia while violating HB6); and renewable alternatives such as solar are cheaper (come again, solar is currently \$300/Mwh versus this bid at \$106). Needless to say, I find little merit to these self-serving positions.

Public Advocate Filing

We share the Delaware Public Advocate’s (DPA’s) concern regarding the way in which the hybrid proposal was advanced and commend him for bringing his voice to the issue. Indeed, I made much the same point in writing before the May 4 hearing and again at the May 4 hearing. In my May 3 written comment I suggested that a decision on a natural gas back-up proposal be deferred until the IRP in order to provide interested parties with a full opportunity to submit public comments on the proposal and that, if considered in that proceeding would allow consideration of other options such as use of existing, idle capacity in Southern Delaware. At the May 4 hearing, I made much the same point (transcript at 1732) and recommended that separate votes be taken on the wind project and the natural gas back-up proposal (transcript at 1731).

To the extent the DPA’s most recent filing represents his considered opinion on the original Bluewater term sheets, I might not have much of a quarrel. On the other hand, to the extent he was commenting on the term sheets as revised and the price escalators removed, I find perplexing much of what the DPA has said. As such, these comments on the DPA’s filing assume for the sake of argument the latter.

DPA Point 1: “However, inexplicably, the PSC Staff submitted an unsolicited report, (“Staff Report I”) in which parties and participants were NOT given the opportunity to validate or challenge, or even provide comments.... Ultimately, the Commission and State Agencies relied solely on Staff Report I and its unchallenged claims.”

Counterpoint 1: As noted above, my May 3 written and 4 oral comments recommended that a decision on the natural gas plant be deferred. The May 3 written comment was circulated to interested persons including the DPA and the DPA was present at the May 4 hearing. Also, while I recommended that separate votes be taken on the wind project and the natural gas back-up proposal, the DPA did not join in that request. Rather, John Citrolo, representing the DPA commented on the necessity of not being tied to convention. “We may have to adapt, we may have to improvise, we may have to do things that we would not normally do in our course of action with traditional utility regulation. May 8 Hearing Transcript at 1669-70.

DPA Point 2: “For all intents and purposes, the DPA was denied our statutory right to be heard” on the May staff report (so-called Staff Report I).

Counterpoint 2: The DPA was heard at the May 8 hearing, providing oral testimony on 11 consecutive pages, Transcript, 1666-1676. The DPA was heard on May 22 as well, Transcript, 1807 and 1878.

DPA Point 3: “In Order 7199 the Commission and State Agencies drifted too far from the ‘lowest reasonable cost’ standard stated in the statute.”

Counterpoint 3: The “lowest reasonable cost” standard referred to by the DPA is in reference to the IRP (see Sections 1002(4) and 1007(c)(1)(b)) and not the RFP. Indeed, Section 1007(d), makes no reference to cost, but rather is primarily concerned with price stability and reductions in environmental impact. We made that argument repeatedly in this docket and on any number of occasions, John Citrolo representing the DPA also stated that he was present during the debate on HB6 and that we were correct in that analysis. Further, at the May 8 hearing, Mr. Citrolo acknowledged that even the DPA at times departs from the lowest rate. He stated that “And as I stated earlier, being chartered with, advocating for lowest reasonable rates, that doesn't always mean we are here for the lowest rate sometimes. You have experienced that in the past with us.” Transcript at 1670. He went on to note that “I think we struck a good balance between getting something out there affordable to folks, a couple of conditions as well as the long-term environmental benefits that the statute has asked us to look at.” Ibid.

DPA Point 4: “The DPA did not challenge Order 7199 earlier because it has been reasonable to conclude that the Commission and State Agencies had intended to negotiate for a renewable energy source first, followed by new generation in Sussex County, and all other criteria second.”

Counterpoint 3: Paragraph 56 of Order 7199 directly refutes this claim. It provides that “In regard to the procedural aspects of negotiations, we reject Staff’s recommendation that DP&L be instructed to negotiate only with Conectiv and that the negotiations between DP&L and Bluewater and DP&L and Conectiv be conducted sequentially. We believe that requiring DP&L to conduct all negotiations (i.e. with Conectiv, Bluewater and NRG) simultaneously, or in propinquity will result in the bidders putting their best bids forward, rather than trying to hedge their bets to see what comes out of the negotiations between DP&L and Bluewater.”

DPA Point 5: “The DPA continues to raise strenuous opposition to the PSC’s adoption of Staff Report I because such adoption will result in providing health and reliability benefits to the general population (*i.e.*, “everybody”) on the peninsula, but the costs will be borne solely by Delmarva’s SOS customers, and, based on current migration levels, almost exclusively by Delmarva SOS residential customers.”

Counterpoint 5: At the May 8 hearing, John Citrolo, while raising this as a concern, he acknowledged that “[T]he municipalities have already agreed indirectly to be part of the renewable project such as BluewaterWind, and I think that goes a long way with minimizing some of our stranded costs.” Indeed, as we have established on the record of

the docket, almost 82% of all Delaware households are served by Delmarva; when DEMEC customers are added, the figure is approximately 90%. See e.g., May 4 transcript, at 1729-1730.

DPA Point 6: “In the future, the Commission and State Agencies must issue stricter and better identifiable guidelines to ensure that ratepayer money is not spent frivolously. Simply sending the parties “back to the table” is neither efficient nor productive and usually ends up, as now, being costly.

Counterpoint 5: On June 27, 2007, Jeremy Firestone filed a motion asking the four state agencies to require Delmarva to provide detailed information on the progress and status of negotiations rather than its weekly *pro forma* filings that negotiations had taken place and would take place in the following week. Unfortunately, the DPA did not join in that motion. Further, at the May 8 hearing, Mr. Citrolo asked the agencies to proceed with all deliberate speed: “We don't see any further insight or anything that could be gained by waiting and just urge you to go ahead and make the determination quickly.” Transcript at 1676.

DPA Point 7: The DPA is most satisfied that Staff Report II now recommends the May 3, 2007 filed position of the DPA. ...In addition, the DPA also recommends that the Commission and State Agencies find that rejecting the “hybrid proposal” and/or the absence of construction of or an exclusive contract for “clean renewable energy” at this time does not necessarily undermine Delaware’s goal of reducing greenhouse gas emissions.”

Counterpoint 7: In its May 3 filing the DPA stated that “if the State Agencies determine that new generation capacity is indeed needed for Delaware’s load growth, the DPA recommends the Blue Water Wind proposal. The DPA believes that using renewable energy resources, in conjunction with an SEU, will better diversify our fuel mix, as well as lessen our demand for *fuel-source-price-volatile* fossil fuels such as natural gas, oil, and coal, while meeting the price stability and long-term environmental goals of EURSCA.”

DPA Point 8: “If the Commission and State Agencies determine to execute a contract with Bluewater Wind for construction of an off-shore wind farm, then the contract should be modified to be a full requirements firm power agreement and, at a minimum, contain ‘most favored customer’ and ‘competitive pricing clauses.’”

Counterpoint 8: The DPA included similar recommendations in its May filing. However, the DPA clearly supported the entry of the May 22 order, which did not adopt those recommendations. First Mr. Citrolo:

As Mr. Geddes indicated ... he did agree to accommodate our comments. I also had discussions with Bluewater Wind, and at this point, we're okay with the order, especially since it already adopts our position. Thank you. We don't have anything else to say today about the order.

Hearing Transcript 1807. Then Public Advocate Padmore:

I congratulate the Commission and state agencies, this now super regulatory agency for handling a very complex assignment. As we move on to the next phase, I would like to remind whoever will be doing that, of the Commission's fundamental role in the regulation of public utilities. And that is ultimate that you use just and reasonable rates for the ratepayers of Delaware. Just a reminder.

Hearing Transcript 1878.

Prior to the May 22 decision, we saw overwhelming support for the Bluewater Wind project by the public as evidenced by written and oral public comment. This support has continued unabated, as evidenced by the public comments placed on the docket website during the months of October and November. In addition, in 2006 before the Bluewater Bid was made public, we undertook a scientific study of public opinion regarding offshore wind power. We found that at the same price the 95% of Delaware residents prefer offshore wind power to coal or natural gas. We found that even when consumers had to pay a wind premium on their monthly electric bills they vastly (91%) prefer offshore wind power to coal or natural gas. We then used the results of the study to estimate how much extra Delaware residents would be willing to pay, in sum, for an offshore wind power project situated some 11-12 miles off of Rehoboth Beach. Given the set up of the question, the residents were required to make those payments in only three years as opposed to being able to spread them out over 25 years. We found that in the aggregate Delaware residents are willing to pay \$555 million dollars (net present value). The Delmarva customer share of that sum is approximately \$450 million dollars, or 66% more than the \$271 million (net present value) the IC estimates the project will cost over the hypothetical market. Thus a scientific sample of the State, including Delmarva customers gives a quantitative answer that is consistent with the majority of public participation in these hearings. Given these facts, I call on the Public Advocate to strongly advocate on behalf of the public who have clearly expressed their preferences.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeremy Firestone". The signature is fluid and cursive, with the first name "Jeremy" written in a larger, more prominent script than the last name "Firestone".

Jeremy Firestone